

IN THE CLAIMS:

Please cancel claims 13, 14, 19 and 20, and amend claims 15, 16, 17, 18 and 21, as follows:

1.-12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Currently amended) ~~Catheter according to claim 13~~ Apparatus according to claim 21, wherein ~~the liquid~~ said supply channels ~~with~~ comprise outlets (15a, 15b) arranged proximate ~~the front and rear~~ said opposed ends of the catheter ~~are supplied with the saline solution independently of liquid supply and~~ outlets (14a, 14b) arranged proximate the a center of the catheter, said outlets proximate the opposed ends being supplied with the saline solution independently of said outlets proximate the center.

16. (Currently amended) Apparatus according to claim 21 ~~Catheter according to claim 13~~, wherein said catheter further comprising ~~comprises~~ a central electrode (8) arranged between the bipolar electrodes (4, 5), the central electrode adapted to function in monopolar mode.

17. (Currently amended) Apparatus according to claim 21 ~~Catheter according to claim 13~~, further comprising one or more thermocouples (16), said thermocouples being retractably

mounted in the catheter and actionable so as to be inserted into tissue surrounding the catheter.

18. (Currently amended) ~~Apparatus according to claim 16~~~~Catheter according to claim 16~~, wherein the ~~liquid supply channel outlets of said supply channels~~ are arranged at a distance (B) from the ~~respective~~said central and end ~~monopolar electrodes adapted to function in monopolar mode~~, that is sufficient to avoid being in a region of coagulated tissue formed around ~~said monopolar electrodes adapted to function in monopolar mode~~.

19. (Cancelled)

20. (Cancelled)

21. (Currently amended) ~~Apparatus according to claim 19~~Apparatus for radiofrequency ablation of tissue comprising a catheter having a pointed tip for piercing insertion into said tissue, comprising at least one pair of bipolar electrodes functioning in bipolar mode and connected to a source of bipolar energy, each bipolar electrode comprising supply channels adapted for the perfusion of saline solution around the electrodes, the catheter further comprising at least two end electrodes arranged towards opposed ends of the catheter, on either side of the pair of bipolar electrodes, said end electrodes connected to a source of monopolar energy and functioning in monopolar mode, and at least two independently controlled pumps for supplying saline solution to separate supply channels of each bipolar electrode, further comprising a temperature acquisition unit connected to thermocouples of the catheter, the apparatus further comprising an RF generator, whereby the independently controlled pumps, RF generator, and

temperature acquisition unit are connected to a computing unit, such as a PC, for monitoring and controlling operations.

22. (Allowed) Method of radiofrequency ablation of tissue, comprising the steps of:
providing a catheter having at least one pair of bipolar electrodes with saline solution supply channels, and at least two monopolar electrodes arranged towards opposed ends of the catheter on either side of the pair of bipolar electrodes;
inserting the catheter into a central region of the volume of tissue to be ablated; supplying electrical power to the monopolar electrodes to coagulate tissue therearound and seal said tissue to said catheter around the puncture performed by the catheter;
perfusing saline solution into the tissue surrounding the bipolar electrodes and supplying electrical RF energy to the bipolar electrodes for thermal ablation.

23. (Allowed) Method according to claim 22, wherein the step of perfusing saline solution comprises supplying saline solution via supply channels (14a, 14b) arranged proximate the center of the catheter at a concentration lower than saline solution supplied to outlets (15a, 15b) arranged proximate opposed ends of the catheter.

24. (Allowed) Method according to claim 22, wherein prior to or during the step of operation of the bipolar electrodes, retractable thermocouples (16) mounted in the catheter are inserted at a certain depth into the surrounding tissue.